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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,139	06/21/2001	Friedrich Mueller	449122005700	9013
25227 7590 01/22/2007 MORRISON & FOERSTER LLP 1650 TYSONS BOULEVARD SUITE 300 MCLEAN, VA 22102			EXAMINER HARPER, V PAUL	
			ART UNIT	PAPER NUMBER
			2626	
SHORTENED STATUTORY PERIOD OF RESPONSE		MAIL DATE	DELIVERY MODE	
3 MONTHS		01/22/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No. 09/831,139	Applicant(s) MUELLER, FRIEDRICH	
	Examiner V. Paul Harper	Art Unit 2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haavisto et al. (U.S. Patent 5,864,603), hereinafter referred to as Haavisto.

Regarding **claim 11**, Haavisto discloses an apparatus for controlling a telephone with voice commands. Haavisto's apparatus includes the following:

- a speech recognition device configured to recognize acoustic objects, where the acoustic objects comprise at least one of individual letters, combinations of letters or control commands (col. 4, lines 23-27; Figs. 1-3 indicates various states during the speech recognition; col. 6, describes various commands that are recognized: "Cancel," "Yes," "No"); and
- an acoustic device for acoustic output or optical display of recognized acoustic objects (col. 6, lines 23-45, responds "Was the number"), wherein
- if an acoustic object is incorrectly recognized, the speech recognition device subsequently recognizes a first control command causes a speech recognition algorithm to expect repeated utterance of the incorrectly recognized object (col. 6, line

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33-57, answers "No" where the phone will go into state voice control; if the recognition failed The phone responds "Number again, please"), and

- a second control command causes the speech recognition algorithm to output at least one further acoustic object (col. 6, line 33-57, the phone responds "Number again, please").

Haavisto also describes the recognition of an acoustic object with multiple possible matches associated with probabilities (col. 4, lines 10-23, multiple phone numbers), but Haavisto does not specifically disclose (as part of a particular embodiment) "a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects." However the examiner contends that these concepts were well-known in the art as taught in the prior art section of Haavisto.

Haavisto in the prior art section describes prior teachings where during the recognition process several potential recognition objects are identified including a best result, a next best result, etc. where the candidates are arranged in order (col. 2, lines 28-39; "if the user gives a negative answer ..., the phone selects the result that is the second best match to the recognition" and "as a response to a voice command ... the telephone indicates ... the next best candidate, when the candidates have been **arranged in order**").

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haavisto by specifically providing the feature,

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as taught by Haavisto's prior art, because it is well known in the art at the time of invention as an improvement when selecting from several possible recognition results (Haavisto, col. 2, line 27-32).

Regarding **claim 12**, Haavisto in view of Haavisto's prior art teaches everything claimed, as applied above (see claim 11). In addition, Haavisto teaches "recognition of a third control command causes the speech recognition algorithm to assess the last-output object as correctly recognized, ends any output of further objects and/or triggers a function corresponding to the recognized control command" (col. 6, lines 34-40; the user may respond "Yes" ..., there follows a transition to a state Dialing).

Regarding **claim 13**, Haavisto discloses method for controlling a telephone with voice commands. Haavisto's method includes the following steps:

- providing a recognition algorithm to recognize acoustic objects, where the acoustic objects comprise at least one of individual letters, combinations of letters or control commands (col. 4, lines 23-27; Figs. 1-3 indicates states during the speech recognition; col. 6, describes various commands that are recognized: "Cancel," "Yes," "No") and
- acoustically outputting or displaying recognized acoustic objects (col. 6, lines 23-45, responds "Was the number"),
- wherein if an acoustic object is incorrectly recognized, the recognition algorithm subsequently recognizes a first control command causes a speech recognition algorithm to expect repeated utterance of the incorrectly recognized object (col. 6, line

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33-57, answers "No" where the phone will go into state Voice control; if the recognition failed The phone responds "Number again, please"), and

- a second control command causes the speech recognition algorithm to output at least (col. 6, line 33-57, the phone responds "Number again").

Haavisto also describes the recognition of an acoustic object with multiple possible matches as associated with a probabilities (col. 4, lines 10-23, multiple phone numbers), but Haavisto does not specifically disclose (as part of a particular embodiment) "one further acoustic object, wherein a recognition probability of the at least one further acoustic object is less than the recognition probability of the previously output acoustic object, but greater than the recognition probability of other acoustic objects, or the further acoustic object is provided by a sequence of entries in a storage device of the device." However the examiner contends that these concepts were well-known in the art as taught in the prior art section of Haavisto.

Haavisto in the prior art section describes prior teachings where during the recognition process several potential recognition objects are identified including a best result, a next best result, etc. where the candidates are arranged in order (col. 2, lines 28-39; "if the user gives a negative answer ..., the phone selects the result that is the second best match to the recognition" and "as a response to a voice command ... the telephone indicates ... the next best candidate, when the candidates have been **arranged in order**"; furthermore the recognition candidates will necessarily be stored in memory during the recognition process).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Haavisto by specifically providing the feature, as taught by Haavisto's prior art, because it is well known in the art at the time of invention as an improvement in recognition accuracy when selecting from several possible recognition results (Haavisto, col. 2, line 27-32) and an increase in user satisfaction from the improved performance.

Regarding **claim 14**, Haavisto in view of Haavisto's prior art teaches everything claimed, as applied above (see claim 13). In addition, Haavisto teaches "the recognition of a third control command causes the speech recognition algorithm to assess the last-output object as correctly recognized, ends any output of further objects and/or triggers a function corresponding to the recognized control command" (col. 6, lines 34-40; the user may respond "Yes" ..., there follows a transition to a state Dialing).

Citation of Pertinent Art

2. The following prior art made of record but not relied upon is considered pertinent to the applicant's disclosure:

- Schalk (U.S. Patent 5,845,246) discloses a method for reducing database requirements for speech recognition systems. In addition Schalk includes the use of a matching scores with a "first choice" and a "second choice" (col. 6, lines 21-41).
- Weideman (U.S. Patent 6,292,782) discloses a speech recognition verification system where a speech recognition algorithm determines a closest match and a next closest match (col. 5, lines 31-51).

Response to Arguments

3. Applicants asserts on page 2:

As an initial matter, we note that the Examiner has repeatedly stated that Haavisto fails to disclose the claimed feature, and has cited secondary prior art, such as Shimada (which has been overcome in previously filed responses), in its place (see, for example, the Office Action dated 9/16/2005, page 3, second paragraph, stating Haavisto fails to disclose this feature and citing Shimada as the secondary reference). Hence, the Examiner has seemingly withdrawn the prior rejection of record (which was Haavisto in combination with Shimada), and now applies Haavisto, with the prior art of Haavisto (which prior art is simply Shimada). Applicants therefore maintain that the Examiner's Office Action is non-responsive to the RCE and Amendment filed August 9, 2006, and is unnecessarily delaying prosecution of this application. Applicants therefore respectfully request that the Examiner issue a new, non-final Office Action fully responding to the arguments of record, or pass this case to allowance.

The examiner, in attempting to clarify the discussion, refers in the previous (and current) action to the prior art teachings of Haavisto, which describe the Shimada patent. Since these teachings were not specifically included in an embodiment of Haavisto's, it is proper to use them in a 103 rejection, which was done for the first time in the last action. In Haavisto's discussion of the Shimada patent, phrases such as "recognition results" "best matches" and "candidates have been arranged in order" (Haavisto, col. 2, lines 25-39) are used which more closely resemble the claim language (see arguments below). Thus, it is felt that the previous rejections are responsive, and that an additional non-final action would only further delay prosecution.

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4. Applicants further assert on page 2:

Assuming *arguendo* that the Examiner believes his Office Action to be appropriate, the applied prior fails to disclose the claimed invention. The prior art (Shimada) of Haavisto refers to lower candidates, lower-place candidates- i.e. first, second and third place candidates- without clearly stating how these candidates are characterized to implement the invention (i.e. does not clearly indicate the *"use of the next lower candidate" in the case of a misrecognized utterance*). Specifically, Shimada fails to teach or suggest which way the order that apparently exists between first, second and third place candidates could be defined. That is, there is no disclosure that teaches one having skilled in the art how to determine the order of the candidates. (Italics added)

The prior art discussion of Haavisto clearly teaches the ordering of the recognition candidates (col. 2, lines 38-39) and the **display of the "next best candidate"** (i.e., "use of the next lower candidate", col. 2, line 38) if the user gives a negative answer to this reproduction (col. 2, lines 32-33). Thus there is a discussion in Haavisto of the ordering of the candidates based on the degrees of recognition. Furthermore, the ordering based on the recognition probability (i.e. the result with the highest probability match is the most likely match, next highest is the next most likely match, etc.) was discussed in the response to arguments sections of the advisory action mailed on 12/28/2005 (pp. 2-3).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Paul Harper whose telephone number is (571) 272-7605. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

1/16/2007

V. Paul Harper
Primary Patent Examiner
Art Unit 2626

V. PAUL HARPER
PRIMARY PATENT EXAMINER

A handwritten signature in black ink, appearing to read "V. Paul Harper", is written over the printed name and title.